WHAT IS CLAIMED IS:

1. A manufacturing method of a liquid jet head, comprising:

a step of forming a piezoelectric member which

5 generates a discharge pressure for discharging a

liquid on a substrate;

a step of disposing a vibration plate on the piezoelectric member;

a step of forming a liquid flow path pattern 10 containing a soluble resin on the vibration plate;

a step of forming a coat layer containing a resin constituting a wall of the liquid flow path on the liquid flow path pattern;

a step of removing the liquid flow path pattern to form the liquid flow path;

a step of removing the substrate; and

a step of patterning the piezoelectric member in accordance with the liquid flow path.

2. The manufacturing method of the liquid jet head according to claim 1, further comprising: a step of forming a liquid discharge port in the coat layer between the step of forming the coat layer and the step of forming the liquid flow path.

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3. The manufacturing method of the liquid jet head according to claim 1, wherein the step of

disposing the vibration plate comprises: laminating the vibration plate on the piezoelectric member or coating the piezoelectric member with a resin constituting the vibration plate.

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4. The manufacturing method of the liquid jet head according to claim 1, wherein the coat layer contains an epoxy resin which is solid at normal temperature.

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5. The manufacturing method of the liquid jet head according to claim 4, further comprising the steps of: forming the coat layer on the substrate by spin coat or roll coat.

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6. The manufacturing method of the liquid jet head according to claim 1, wherein the substrate and a layer of a resin formed on the substrate have optical transmission.

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7. A manufacturing method of a liquid jet head comprising:

a step of forming a piezoelectric member which generates a discharge pressure for discharging a liquid on a substrate;

a step of disposing a vibration plate on the piezoelectric member;

a step of forming a liquid flow path pattern containing a soluble resin on the vibration plate;

a step of forming a coat layer containing a resin constituting a wall of the liquid flow path on the liquid flow path pattern;

a step of removing the substrate;

a step of patterning the piezoelectric member in accordance with the liquid flow path; and

a step of removing the liquid flow path pattern to form the liquid flow path.

- 8. The manufacturing method of the liquid jet head according to claim 7, further comprising: a step of forming a liquid discharge port in the coat layer between the step of forming the coat layer and the step of removing the substrate.
- 9. The manufacturing method of the liquid jet head according to claim 7, wherein the step of disposing the vibration plate comprises: laminating the vibration plate on the piezoelectric member or coating the piezoelectric member with a resin constituting the vibration plate.
- 10. The manufacturing method of the liquid jet head according to claim 7, wherein the coat layer contains an epoxy resin which is solid at normal

temperature.

- 11. The manufacturing method of the liquid jet head according to claim 10, further comprising the steps of: forming the coat layer on the substrate by spin coat or roll coat.
- 12. The manufacturing method of the liquid jet head according to claim 7, wherein the substrate and a layer of a resin formed on the substrate have optical transmission.